

REMARKS

[0001] Applicant respectfully requests reconsideration and allowance of all of the claims of the application. Claims 1-74 are presently pending. Claims amended herein are 1-34, 40, 45, 48, 59-61, 63, 64, 69, and 72. No claims are withdrawn or cancelled herein. No new claims are added herein.

Formal Request for an Interview

[0002] If the Examiner's reply to this communication is anything other than allowance of all pending claims, then I formally request an interview with the Examiner. I encourage the Examiner to call me—the undersigned representative for the Applicant—so that we can talk about this matter so as to resolve any outstanding issues quickly and efficiently over the phone.

[0003] Please contact me to schedule a date and time for a telephone interview that is most convenient for both of us. While email works great for me, I welcome your call as well. My contact information may be found on the last page of this response.

Claim Amendments

[0004] Without conceding the propriety of the rejections herein and in the interest of expediting prosecution, Applicant amends claims 1-34, 40, 45, 48, 59-61, 63, 64, 69, and 72 herein. Applicant amends claims to clarify claimed features. Such amendments are made to expedite prosecution and more quickly identify allowable subject matter. Such amendments are merely intended to clarify the claimed features, and should not be construed as further limiting the claimed invention in response to the cited references.

Substantive Matters

Claim Rejections under § 101

[0005] Claims 1-33 are rejected under 35 U.S.C. § 101. Applicant respectfully traverses this rejection. Furthermore, in light of the amendments presented herein, Applicant respectfully submits that these claims comply with the patentability requirements of §101 and that the §101 rejections should be withdrawn. Specifically, claims 1-33 are amended herein to recite “computer-readable storage medium”, which is described in the specification at least at pages 31-33 (as originally filed). Applicant further asserts that these claims are allowable. Accordingly, Applicant asks the Examiner to withdraw these rejections.

[0006] If the Examiner maintains the rejection of these claims, then Applicant requests additional guidance as to what is necessary to overcome the rejection.

Claim Rejections under § 102 and § 103

[0007] The Examiner rejects claims 1, 5-8, 30-33, 45, 47, 64-67, and 69 under § 102. For the reasons set forth below, the Examiner has not shown that the cited reference anticipates the rejected claims.

[0008] In addition, the Examiner rejects claims 2-4, 7-29, 34-44, 46, 48-63, 69, and 70-74 under § 103. For the reasons set forth below, the Examiner has not made a prima facie case showing that the rejected claims are obvious.

[0009] Accordingly, Applicant respectfully requests that the § 102 and § 103 rejections be withdrawn and the case be passed along to issuance.

[0010] The Examiner's rejections are based upon the following references alone and in combination:

- ✧ • **Porter:** *Porter*, US Patent No. 5,659,539 (issued August 19, 1997);
- **Wing So:** *Wing So*, US Patent No. 5,987,590 (issued November 16, 1999);
- **Bhadkamkar:** *Bhadkamkar, et al.*, US Patent No. 5,893,062 (issued April 6, 1999);
- **Major:** *Major, et al.*, US Patent No. 6,990,512 (issued January 24, 2006);
- **Yeo:** *Yeo*, US Patent No. 6,711,741 (issued March 23, 2004); and
- **Belknap:** *Belknap, et al.*, US Patent No. 5,586,264 (issued December 17, 1996).

Overview of the Application

[0011] The Application describes variable play speed control of media streams. A media stream is received at an accelerated rate with no data being intentionally dropped.

Cited References

[0012] The Examiner cites Porter as the primary reference in the anticipation- and obviousness-based rejections. The Examiner cites Wing So and Bhadkamkar, Major, Yeo, and Belknap, in various combinations, as secondary references in the obviousness-based rejections.

Porter

[0013] Porter describes a digital video delivery system in which a tag file includes information about each of the frames in an audio-visual work. The tag file is used to

determine prefix data to be pre-pended to a portion of a video stream in response to a seek command.

Wing So

[0014] Wing So describes a PC system that includes a main CPU microprocessor, a file-based operating system, and a DSP microprocessor arranged so that the DSP can execute main CP operations during time intervals in which the main CPI is otherwise occupied, thereby increasing the bandwidth of the system. (*Wing So, Summary.*)

Bhadkamkar

[0015] Bhadkamkar describes enabling the apparent display rate of an audio visual display to be varied.

Major

[0016] Major describes controlling a real time presentation session through a communication network using control features embedded in a predetermined presentation software such as QuickTime Player.

Yeo

[0017] Yeo describes a random access video playback system implemented on a network.

Belknap

[0018] Belknap describes a "video friendly" computer sub-system which enables isochronous data stream delivery in a multimedia environment over traditional interfaces for that industry. (*Belknap, Summary.*)

Anticipation Rejections

[0019] Applicant submits that the anticipation rejections are not valid because, for each rejected claim, no single reference discloses each and every element of that rejected claim.¹ Furthermore, the elements disclosed in the single reference are not arranged in the manner recited by each rejected claim.²

Based upon Porter

[0020] The Examiner rejects claims 1, 5-8, 30-33, 45, 47, 64-67, and 69 under 35 U.S.C. § 102(b) as being anticipated by Porter. Applicant respectfully traverses the rejection of these claims. Based on the reasons given below, Applicant asks the Examiner to withdraw the rejection of these claims.

Independent Claim 1

[0021] Applicant submits that Porter does not anticipate this claim because it does not disclose the following elements as recited in this claim (with emphasis added):

- requesting media content at an accelerated rate from a source, the accelerated rate being a rate that exceeds a normal playback rate;

¹ "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987); also see MPEP §2131.

² See *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990).

- receiving a media stream at the accelerated rate, wherein the media stream is an uninterrupted data stream of the media content that has no intentionally dropped data; and
- rendering all content in the media stream at the accelerated rate.

[0022] Regarding the claimed, “wherein the media stream is an uninterrupted data stream of the media content that has no intentionally dropped data,” the Examiner cites Porter, column 21, lines 8-19. (Office Action, page 3.) Porter, column 21, lines 8-19 states:

The concept of “multistream” fast forward or rewind has been mentioned above. Multistream fast forward or rewind is accomplished by storing multiple copies of the movie, where the copies have been recorded at various rates.

In the preferred embodiment, when a client requests a certain fast forward or rewind presentation rate, the stream server 110 will determine whether it has a prerecorded file at that rate. If so, it will play that file. This will give the user more frames per second and will also cause less computational and communication load on the stream server 110 and video pump 130.

[0023] The cited portion of Porter describes delivering a media stream that includes content that was previously recorded at an accelerated rate. Accordingly, when the media stream is delivered and played at a standard rate, the content appears to be presented at an accelerated rate.

[0024] In contrast, claim 1 recites, “receiving a media stream at the accelerated rate.” This is different from receiving a media stream of content previously recorded at an accelerated rate, which is described in Porter.

[0025] Furthermore, Porter also describes a scenario in which there is no available media stream that was previously recorded at the requested accelerated rate. In such a scenario, frames are intentionally dropped to enable the media stream to be delivered at an accelerated rate. (See Porter, col. 16, line 66 – col. 17, line 6 and col. 17, lines 9-18.) This is contradictory to the claimed, “wherein the media stream is an uninterrupted data stream of the media content that has no intentionally dropped data.”

[0026] Consequently, Porter does not disclose all of the elements and features of this claim. Accordingly, Applicant asks the Examiner to withdraw the rejection of this claim.

Dependent Claims 5-8

[0027] These claims ultimately depend upon independent claim 1. As discussed above, claim 1 is allowable. It is axiomatic that any dependent claim which depends from an allowable base claim is also allowable. Additionally, some or all of these claims may also be allowable for additional independent reasons.

Independent Claim 30

[0028] Applicant submits that Porter does not anticipate this claim because it does not disclose the following elements as recited in this claim, as amended (with emphasis added):

- streaming a media stream to a client at a real time rate;
- receiving a request from the client to deliver the media stream at an accelerated rate; and
- delivering the media stream to the client at the accelerated rate, wherein no data is intentionally dropped from the media stream to achieve the accelerated rate.

[0029] Regarding the claimed, “delivering the media stream to the client at the accelerated rate,” the Examiner cites Porter, column 21, lines 8-24 and column 16, lines 40-59. (Office Action, page 5.) As discussed above with reference to claim 1, the cited portion of Porter describes delivering a media stream that includes content that was previously recorded at an accelerated rate. Accordingly, when the media stream is delivered and played at a standard rate, the content appears to be presented at an accelerated rate.

[0030] In contrast, claim 30 specifies that a media stream is streamed to the client at a real time rate, and then, after a request is received, the same media stream is delivered at an accelerated rate. This is different from receiving a media stream of content previously recorded at an accelerated rate, which is described in Porter.

[0031] Furthermore, Porter also describes a scenario in which there is no available media stream that was previously recorded at the requested accelerated rate. In such a scenario, frames are intentionally dropped to enable the media stream to be delivered at an accelerated rate. (See Porter, col. 16, line 66 – col. 17, line 6 and col. 17, lines 9-18.)

[0032] Claim 30 is amended herein to include, “wherein no data is intentionally dropped from the media stream to achieve the accelerated rate.”

[0033] Consequently, Porter does not disclose all of the elements and features of this claim. Accordingly, Applicant asks the Examiner to withdraw the rejection of this claim.

Dependent Claims 31-33

[0034] These claims ultimately depend upon independent claim 30. As discussed above, claim 30 is allowable. It is axiomatic that any dependent claim which depends from an allowable base claim is also allowable. Additionally, some or all of these claims may also be allowable for additional independent reasons.

Independent Claim 45

[0035] Applicant submits that Porter does not anticipate this claim because it does not disclose the following elements as recited in this claim, as amended (with emphasis added):

- means for requesting media content at an accelerated rate from a source;

- means for receiving a media data stream from the source at the accelerated rate, wherein the media data stream has no intentionally dropped data of the media content; and
- means for rendering all content in the media data stream at the accelerated rate.

[0036] As described above with reference to claim 1, Porter describes delivering a media stream that includes content that was previously recorded at an accelerated rate. Accordingly, when the media stream is delivered and played at a standard rate, the content appears to be presented at an accelerated rate.

[0037] In contrast, claim 45 recites, “receiving a media data stream from the source at the accelerated rate.” This is different from receiving a media stream of content previously recorded at an accelerated rate, which is described in Porter.

[0038] Furthermore, claim 45 has been amended to include, “wherein the media data stream has no intentionally dropped data of the media content.” In contrast, Porter describes a scenario in which there is no available media stream that was previously recorded at the requested accelerated rate. In such a scenario, frames are intentionally dropped to enable the media stream to be delivered at an accelerated rate. (See Porter, col. 16, line 66 – col. 17, line 6 and col. 17, lines 9-18.)

[0039] Consequently, Porter does not disclose all of the elements and features of this claim. Accordingly, Applicant asks the Examiner to withdraw the rejection of this claim.

Dependent Claim 47

[0040] This claim ultimately depends upon independent claim 45. As discussed above, claim 45 is allowable. It is axiomatic that any dependent claim which depends from an allowable base claim is also allowable. Additionally, claim 47 may also be allowable for additional independent reasons.

Independent Claim 64

[0041] Claim 64, as amended, recites elements that are similar to those recited in claim 30. Accordingly, Applicant submits that claim 64 is allowable at least for reasons similar to those given above regarding claim 30, and respectfully requests that the Examiner withdraw the rejection of claim 64.

Dependent Claims 65 and 66

[0042] These claims ultimately depend upon independent claim 64. As discussed above, claim 64 is allowable. It is axiomatic that any dependent claim which depends from an allowable base claim is also allowable. Additionally, one or both of these claims may also be allowable for additional independent reasons.

Independent Claim 67

[0043] Applicant submits that Porter does not anticipate this claim because it does not disclose the following elements as recited in this claim (with emphasis added):

- A streaming media server comprising a variable speed streaming module configured to receive a request to stream media content at an accelerated rate and to stream the media content at the accelerated rate without dropping any data from the media content, the accelerated rate being a rate that exceeds a real time playback rate of the media content..

[0044] Regarding the claimed, “delivering the media stream to the client at the accelerated rate,” the Examiner cites Porter, column 21, lines 8-19. (Office Action, page 7.) As discussed above, the cited portion of Porter describes delivering a media stream that includes content that was previously recorded at an accelerated rate. Accordingly, when the media stream is delivered and played at a standard rate, the content appears to be presented at an accelerated rate.

[0045] In contrast, claim 67 specifies that a media stream is streamed at an accelerated rate. This is different from streaming (at a standard rate) a media stream of content previously recorded at an accelerated rate, which is described in Porter.

[0046] Furthermore, Porter also describes a scenario in which there is no available media stream that was previously recorded at the requested accelerated rate. In such a scenario, frames are intentionally dropped to enable the media stream to be delivered at an accelerated rate. (See Porter, col. 16, line 66 – col. 17, line 6 and col. 17, lines 9-18.)

[0047] Claim 67 recites, “without dropping any data from the media content.”

[0048] Consequently, Porter does not disclose all of the elements and features of this claim. Accordingly, Applicant asks the Examiner to withdraw the rejection of this claim.

Independent Claim 69

[0049] Claim 69, as amended, recites elements that are similar to those recited in claim 1. Accordingly, Applicant submits that claim 69 is allowable at least for reasons similar to those given above regarding claim 1, and respectfully requests that the Examiner withdraw the rejection of claim 69.

Obviousness Rejections

Lack of Prima Facie Case of Obviousness (MPEP § 2142)

[0050] Applicant disagrees with the Examiner's obviousness rejections. Arguments presented herein point to various aspects of the record to demonstrate that all of the criteria set forth for making a prima facie case have not been met.

Based upon Porter, Wing So, and Bhadkamkar

[0051] The Examiner rejects claims 2-4, 46, 70, and 71 under 35 U.S.C. § 103(a) as being unpatentable over Porter in view of Wing So, and further in view of Bhadkamkar. Applicant respectfully traverses the rejection of these claims and asks the Examiner to withdraw the rejection of these claims.

Dependent Claims 2-4

[0052] These claims ultimately depend upon independent claim 1. As discussed above, claim 1 is allowable. Wing So and Bhadkamkar do not add to the teaching of Porter regarding claim 1. It is axiomatic that any dependent claim which depends from an allowable base claim is also allowable. Additionally, some or all of these claims may also be allowable for additional independent reasons.

[0053] For example, claim 3 recites, "wherein the media stream further comprises a non-video/non-audio data stream synchronized to the video stream and the audio stream." In rejecting claim 3, the Examiner cites Porter, col. 12, lines 32-48 and col. 13,

lines 45-51. These cited portions of Porter describe prefix data. Regarding “prefix data”, Porter states the following:

...prefix data is data that prepares the client to receive digital audio-visual data from the specified location in the digital audio-visual file.”
(Porter, col. 6, lines 63-65.)

Once the target position has been determined, the stream server 110 constructs prefix data for the transition. As mentioned above, prefix data is data that must be inserted into the MPEG data stream prior to a transition to ensure that the MPEG data stream remains MPEG compliant. (Porter, col. 12, lines 26-30.)

If video pump 130 simply jumps from one point in the MPEG file 104 to another point, packaging information will be lost and the clients will not be able to properly decode the data. For example, if video pump 130 simply starts transmitting data from point 280 in FIG 2a, the PES header 248 for PES packet 250 and the header for transport packet 251 will be skipped. These headers contain data which indicates how to decode the information which follows them. Consequently, without the information contained in these headers, the client will not know how to decode the subsequent data.

Therefore, prefix data must be constructed and sent to smoothly transition between the current location in the MPEG file 104 and a new location. The prefix data contains packaging information which begins packages for the data at the new location. (Porter, col. 13, lines 32-49.)

[0054] First, Porter describes prefix data with reference to a seek operation – not to implement a fast-forward operation. Second, the prefix data described by Porter is *part of*

the audio/video data streams – not a “non-video/non-audio data stream synchronized to the video stream and the audio stream,” as claimed.

[0055] With reference to claim 4, the citation in the Office Action to Porter, col. 12, lines 32-48 and col. 13, lines 45-51 does not appear to make any mention of “script commands”, “metadata”, or “captions”, as recited in claim 4.

Dependent Claim 46

[0056] This claim depends upon independent claim 45. As discussed above, claim 45 is allowable. Wing So and Bhadkamkar do not add to the teaching of Porter regarding claim 45. It is axiomatic that any dependent claim which depends from an allowable base claim is also allowable. Additionally, claim 46 may also be allowable for additional independent reasons.

Dependent Claims 70 and 71

[0057] These claims ultimately depend upon independent claim 69. As discussed above, claim 69 is allowable. Wing So and Bhadkamkar do not add to the teaching of Porter regarding claim 69. It is axiomatic that any dependent claim which depends from an allowable base claim is also allowable. Additionally, one or both of these claims may also be allowable for additional independent reasons.

Based upon Porter and Major

[0058] The Examiner rejects claims 9-18, 20-29, 34-36, 39, 48-63, 68, and 72-74 under 35 U.S.C. § 103(a) as being unpatentable over Porter in view of Major. Applicant respectfully traverses the rejection of these claims and asks the Examiner to withdraw the rejection of these claims.

Independent Claim 9

[0059] Applicant submits that the combination of Porter and Major does not teach or suggest at least the following elements as recited in this claim, as amended (with emphasis added):

- receiving previously stored, non-live media content via a media stream

[0060] Major is related to streaming live media content, but does not address previously stored media content. Accordingly, as amended, the combination of Porter and Major does not teach or suggest all of the elements and features of this claim. Accordingly, Applicant asks the Examiner to withdraw the rejection of this claim.

Dependent Claims 10-18 and 20-22

[0061] These claims ultimately depend upon independent claim 9. As discussed above, claim 9 is allowable. It is axiomatic that any dependent claim which depends

from an allowable base claim is also allowable. Additionally, some or all of these claims may also be allowable for additional independent reasons.

Independent Claim 23

[0062] Claim 23 is amended herein, rendering the rejection of claim 23 moot. Furthermore Applicant submits that, as amended, claim 23 is allowable. For example, none of the cited references teach the claimed, “determining if the media source and a network link can support the non-real-time rate without intentionally dropping data from the media content”.

Dependent Claims 24-29

[0063] These claims ultimately depend upon independent claim 23. As discussed above, claim 23 is allowable. It is axiomatic that any dependent claim which depends from an allowable base claim is also allowable. Additionally, some or all of these claims may also be allowable for additional independent reasons.

Independent Claim 34

[0064] Claim 34 is amended herein, rendering the rejection of claim 34 moot. Furthermore Applicant submits that, as amended, claim 34 is allowable. For example, none of the cited references teach the claimed, “vary playback speed of a media stream depending on a source of the media stream and on whether the source can deliver the

media stream at a requested rate, without intentionally dropping data from the media stream to enable delivering the media stream at the requested rate".

Dependent Claims 35, 36, and 39

[0065] These claims ultimately depend upon independent claim 34. As discussed above, claim 34 is allowable. It is axiomatic that any dependent claim which depends from an allowable base claim is also allowable. Additionally, some or all of these claims may also be allowable for additional independent reasons.

Independent Claim 48

[0066] Claim 48 is amended herein, rendering the rejection of claim 48 moot. Furthermore Applicant submits that, as amended, claim 48 is allowable. For example, none of the cited references teach the claimed, "determining if the source can deliver the media stream at an accelerated rate without intentionally dropping data from the media stream".

Dependent Claims 49-58

[0067] These claims ultimately depend upon independent claim 48. As discussed above, claim 48 is allowable. It is axiomatic that any dependent claim which depends from an allowable base claim is also allowable. Additionally, some or all of these claims may also be allowable for additional independent reasons.

Independent Claim 59

[0068] Claim 59 is amended herein, rendering the rejection of claim 59 moot. Furthermore Applicant submits that, as amended, claim 59 is allowable. For example, none of the cited references teach the claimed, “determining if the media source and a network link can support the non-real-time rate without intentionally dropping data from the media content”.

Dependent Claims 60-63

[0069] These claims ultimately depend upon independent claim 59. As discussed above, claim 59 is allowable. It is axiomatic that any dependent claim which depends from an allowable base claim is also allowable. Additionally, some or all of these claims may also be allowable for additional independent reasons.

Dependent Claim 68

[0070] This claim depends upon independent claim 67. As discussed above, claim 67 is allowable. It is axiomatic that any dependent claim which depends from an allowable base claim is also allowable. Additionally, this claim may also be allowable for additional independent reasons.

Independent Claim 72

[0071] Claim 72 is amended herein, rendering the rejection of claim 72 moot. Furthermore Applicant submits that, as amended, claim 72 is allowable. For example, none of the cited references teach the claimed, “determining if the source can deliver the media stream at an accelerated rate without intentionally dropping data from the media stream”.

Dependent Claims 73 and 74

[0072] These claims ultimately depend upon independent claim 72. As discussed above, claim 72 is allowable. It is axiomatic that any dependent claim which depends from an allowable base claim is also allowable. Additionally, one or both of these claims may also be allowable for additional independent reasons.

Based upon Porter, Major, and Yeo

[0073] The Examiner rejects claims 19, 38, 40-42, and 44 under 35 U.S.C. § 103(a) as being unpatentable over Porter in view of Major, and further in view of Yeo. Applicant respectfully traverses the rejection of these claims and asks the Examiner to withdraw the rejection of these claims.

Dependent Claims 19 and 38

[0074] These claims ultimately depend upon independent claims 9 and 34, respectively. As discussed above, claims 9 and 34 are allowable. It is axiomatic that any dependent claim which depends from an allowable base claim is also allowable. Additionally, one or both of these claims may also be allowable for additional independent reasons.

Independent Claim 40

[0075] Claim 40 is amended herein, rendering the rejection of claim 40 moot. Furthermore Applicant submits that, as amended, claim 40 is allowable. For example, none of the cited references teach the claimed, “the current play speed control capability determined by the playback module according to a source of the media stream and whether the source can deliver the media stream at an accelerated rate without intentionally dropping data from the media stream”.

Dependent Claims 41, 42, and 44

[0076] These claims ultimately depend upon independent claim 40. As discussed above, claim 40 is allowable. It is axiomatic that any dependent claim which depends from an allowable base claim is also allowable. Additionally, some or all of these claims may also be allowable for additional independent reasons.

Based upon Porter, Major, and Belknap

[0077] The Examiner rejects claim 37 under 35 U.S.C. § 103(a) as being unpatentable over Porter in view of Major, and further in view of Belknap. Applicant respectfully traverses the rejection of these claims and asks the Examiner to withdraw the rejection of this claim.

Dependent Claim 37

[0078] This claim depends upon independent claim 34. As discussed above, claim 34 is allowable. It is axiomatic that any dependent claim which depends from an allowable base claim is also allowable. Additionally, some or all of these claims may also be allowable for additional independent reasons.

Based upon Porter, Major, Yeo, and Belknap

[0079] The Examiner rejects claim 43 under 35 U.S.C. § 103(a) as being unpatentable over Porter in view of Major, in view of Yeo, and further in view of Belknap. Applicant respectfully traverses the rejection of these claims and asks the Examiner to withdraw the rejection of this claim.

Dependent Claim 43

[0080] This claim depends upon independent claim 40. As discussed above, claim 40 is allowable. It is axiomatic that any dependent claim which depends from an allowable base claim is also allowable. Additionally, some or all of these claims may also be allowable for additional independent reasons.

Dependent Claims

[0081] In addition to its own merits, each dependent claim is allowable for the same reasons that its base claim is allowable. Applicant requests that the Examiner withdraw the rejection of each dependent claim where its base claim is allowable.

Conclusion

[0082] All pending claims are in condition for allowance. Applicant respectfully requests reconsideration and prompt issuance of the application. If any issues remain that prevent issuance of this application, the **Examiner is urged to contact me before issuing a subsequent Action.** Please call or email me at your convenience.

Respectfully Submitted,

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